

Title (en)  
Electronic device

Title (de)  
Elektronische Vorrichtung

Title (fr)  
Dispositif électronique

Publication  
**EP 1740024 A2 20070103 (EN)**

Application  
**EP 06253153 A 20060619**

Priority  
JP 2005184084 A 20050623

Abstract (en)  
An electronic device is provided with a mounting orientation recognition mark to facilitate its automated assembly into a circuit. The mark is formed as part of the normal manufacturing process for the device, said device being provided with input/output terminals surrounded by a ground pattern on an end surface. A substrate 20 is provided within a case main body 10. A ground pattern 21 is formed on the substrate surface. An output terminal 211, a power terminal 212, a clock terminal 213, a GND terminal 214 and a mounting orientation recognition mark hole 215 are formed on the ground pattern 21 through pattern removal. The main portion of the substrate 20 is exposed through an opening 12 in the case 10 and the tip end portions of the output terminal 211 and the like are slightly protruded from the main body end surface. The ground pattern 21 on the substrate 20, the case main body 10 and the like are electrically connected to the GND terminal 214 and the entire component is shielded.

IPC 8 full level  
**H05K 1/02** (2006.01)

CPC (source: EP KR US)  
**H04R 1/06** (2013.01 - EP KR US); **H04R 19/016** (2013.01 - KR); **H05K 1/0243** (2013.01 - KR); **H05K 1/0269** (2013.01 - KR); **H05K 3/303** (2013.01 - EP KR US); **H04R 2499/11** (2013.01 - KR); **H05K 1/0243** (2013.01 - EP US); **H05K 1/0269** (2013.01 - EP US); **H05K 2201/0969** (2013.01 - EP KR US); **H05K 2201/09718** (2013.01 - EP KR US); **H05K 2203/166** (2013.01 - EP KR US); **H05K 2203/168** (2013.01 - EP US); **Y02P 70/50** (2015.11 - EP US)

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA HR MK YU

DOCDB simple family (publication)  
**EP 1740024 A2 20070103**; **EP 1740024 A3 20071212**; CN 1886039 A 20061227; CN 1886039 B 20100901; JP 2007006149 A 20070111; KR 100799443 B1 20080130; KR 20060134792 A 20061228; TW 200704303 A 20070116; TW I293545 B 20080211; US 2006291678 A1 20061228; US 7558077 B2 20090707

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**EP 06253153 A 20060619**; CN 200610093118 A 20060621; JP 2005184084 A 20050623; KR 20060041739 A 20060510; TW 95116748 A 20060511; US 44786406 A 20060607